

# Work Order ID 93134

November-14-12 2:30:31 PM

\*93134\*

Page 1

Item ID: D3499-3

Accept

\*N9000040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Plastic Cable Guard

Start Date: 14/11/2012 Start Qty: 6.00

\*6\*

Cust Item ID:

Required Date: 28/11/2012 Req'd Qty: 6.00

\*6\*

Customer:

Reference:

Approvals: Process Plan: MLS Date: 12-11-14

Tooling: Date:

Run Start \*NR1\*

QC: Date: SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
<b>Draw Nbr</b>	<b>Revision Nbr</b>								
D3499	Rev C								
100		0.00							
<b>*100*</b>	FLOW WATER JET								
Waterjet	Memo	0.00							
FLOW CNC Waterjet	1-Cut as per Dwg D3499								
<u>UHMW-625.</u>	Dwg Rev: <u>E</u>								
	Prog Rev: <u>E</u>								
	2-Deburr if necessary								
110	QC2- Inspect parts off machine FAI/FAIB	0.00							
<b>*110*</b>									
QC	Memo	0.00							
Quality Control									
120		0.00							
<b>*120*</b>	HAAS CNC VERTICAL MACHINING #1								
HAAS 1	Memo	0.00							
HAAS CNC vertical machine #1	1- Mill as per Folio FA636 Rev: <u>AA</u> & Dwg D3499 Rev: <u>C</u>								
	2-Deburr per dwg D3499								

⑦

B13-1-2C

P10 ~~LAST P25~~ →

⑦

B13-1-2C

JFC/BA 2013-02-15 7 0

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: dwz Date: 13/04/20QA Closed: dwz Date: 13/04/10

Work Order: <u>93134</u>	<b>DISPOSITION</b> Rework <input checked="" type="checkbox"/> <u>dwz</u> Scrap <input checked="" type="checkbox"/> <u>t</u> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>					
Part No. <u>D3A99-3</u>		Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input checked="" type="checkbox"/>	Engineering <input type="checkbox"/>		
NCR No. <u>13-2469</u>		Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>		
		Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>		
		Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>			

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data				ALL HOLES (Ø0.201) ARE SLIGHTLY OFF BY UP TO 0.060". RC: PARTS NOT SITTING PROPERLY ON WJ BOD.		SCOT QTY (2) Ø0.201 HOLES AT EACH END TO Ø0.201 ± 0.025 VERIFY FIT ON NEXT ASSY. QTY PART SCRAP. 7 NOW <u>(6)</u>	D.A. 13/04/03	S 13/04/03 153.56 921.30	S 13/04/03
Equip/Tooling	<input checked="" type="checkbox"/>								
Operator									
Material									
Setup	<input checked="" type="checkbox"/>	13.04.26	100						
Other									
Process	<input checked="" type="checkbox"/>		7						
Supplier									
Training									
Unapproved									

## FAULT CATEGORY

Landing Gear	General	
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other

# Work Order ID 93134

November-14-12 2:30:32 PM

**\*93134\***

Page 2

Item ID: D3499-3

Accept

**\*N9000040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Plastic Cable Guard

Start Date: 14/11/2012 Start Qty: 6.00

**\*6\***

Cust Item ID:

Required Date: 28/11/2012 Req'd Qty: 6.00

**\*6\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC2- Inspect parts off machine FAI/FAIB	0.00							
<b>*130*</b>									
QC	Memo	0.00							
Quality Control									
140		0.00							
<b>*140*</b>	CONVENTIONAL MILLING MACHINE								
Mill Conv	Memo	0.00							
Conventional Milling Machine	C'BORE AS PER DWG D3499								
150	QC2- Inspect parts off machine FAI/FAIB	0.00							
<b>*150*</b>									
QC	Memo	0.00							
Quality Control									

3fc/bA 2013-02-15

7 0

MJP 13/03/28

6 1

MJP 13/03/28

6 0

# Work Order ID 93134

November-14-12 2:30:32 PM

**\*93134\***

Page 3

Item ID: D3499-3

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Plastic Cable Guard

Start Date: 14/11/2012 Start Qty: 6.00

**\*6\***

Cust Item ID:

Required Date: 28/11/2012 Req'd Qty: 6.00

**\*6\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC8- Inspect parts - second check	0.00							
<b>*160*</b>									
QC	Memo	0.00				6	-		DA 33 28
Quality Control									13-03-03
170	Identify as per dwg & Stock Location:	0.00							
<b>*170*</b>									
Packaging	Memo	0.00							
Packaging									
180	QC21- Final Inspection - Work Order Release	0.00							
<b>*180*</b>									
QC	Memo	0.00							
Quality Control									

*13/4/12*

*13/4/12*

*13041*

# Picklist Print

November-14-12 2:30:36 PM

Page 1

Work Order ID: 93134

\*93134\*

Parent Item: D3499-3

\*D3499-3\*

Parent Item Name: Plastic Cable Guard

Start Date: 14/11/2012

Required Date: 28/11/2012

Start Qty: 6.00

Required Qty: 6.00

## Comments:

IPP Rev:A New Issue 06-05-05 JLM

IPP Rev:B As per Rev B 06-08-31 JLM

IPP Rev:C as per dwg

revC DD 10.02.23 verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MUHMWB625		Purchased	No			110	sf	11.0000	1.081	6.827368	8.		

\*MUHMWB625\*

UHMW 625 Black Tivar 1000

\*\*

B13-4-26

## Location

## Loc Qty

## Loc Code

MAT019

11

119591

11

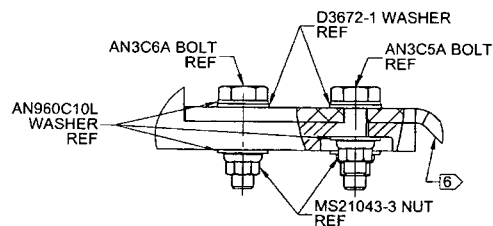
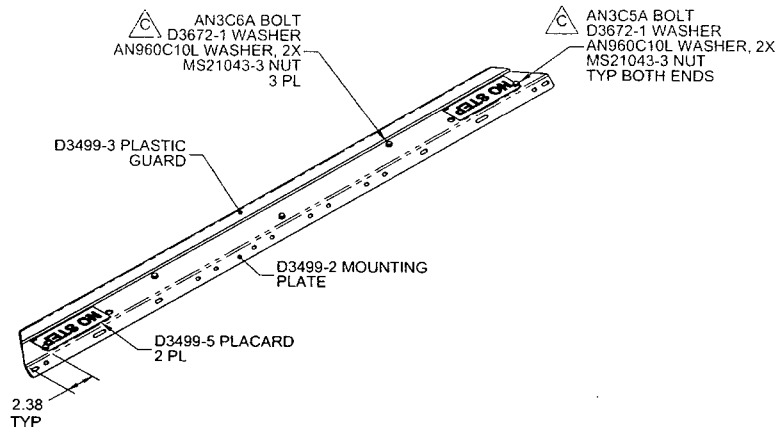
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7

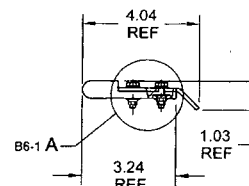


## FIRST ARTICLE INSPECTION CHECKLIST

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	



**DETAIL A** B4-1  
SCALE 4X



**D3499-042 CABLE GUARD ASSEMBLY**

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3499-041/-042" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 3.90 lbs

ITEM	QTY	P/N	DESCRIPTION
1	X	D3499-042	CABLE GUARD ASSEMBLY
2	1	D3499-2	MOUNTING PLATE
3	1	D3499-3	PLASTIC GUARD
4	2	D3499-5	PLACARD
5	2	AN3C5A	BOLT
6	3	AN3C6A	BOLT
7	10	AN960C10L	WASHER
8	5	MS21043-3	NUT
9	5	D3672-1	WASHER

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT

WITHOUT NOTICE  
WORK ORDER

NO. 93134 MJS

12-11-14

**RELEASED**  
2010-02-02  
MD

C	DRAWING UPDATED TO CURRENT STANDARDS. 3.245 WAS 3.255 (ZN B8-3); 3.24 WAS 3.25 (ZN D3-3); REVISE TOLERANCE & 2.01 WAS 2.00 (ZN D3-3); D3672-1 WAS NAS1515H3L (ZN D3-1, D5-1, D7-1); ADD IDENTIFY NOTE (ZN A8-1); REF NCR-09-045	RF	09.06.19
B	RE-DESIGN D3499-2F/-3	MB	06.08.15
A	NEW ISSUE	MB	06.04.11
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	RF		
CHECKED	RF		
MFG. APPR.	RF		
APPROVED	RF		
DE APPR.	RF		
DATE	09.06.19		

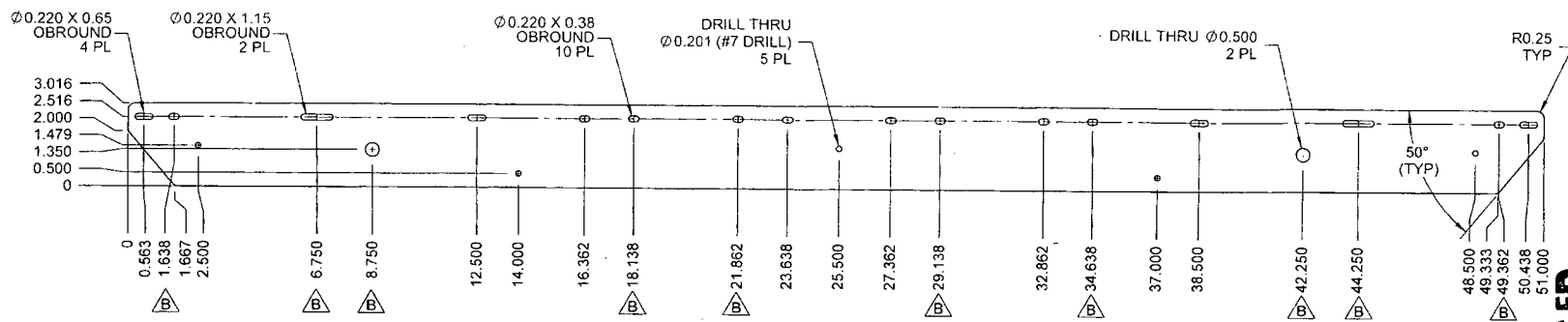
**DART AEROSPACE USA, INC.**  
PORT HADLOCK, WA

DRAWING NO. **D3499**  
TITLE **CABLE GUARD**  
REV. C  
SHEET 1 OF 4  
SCALE  
NTS

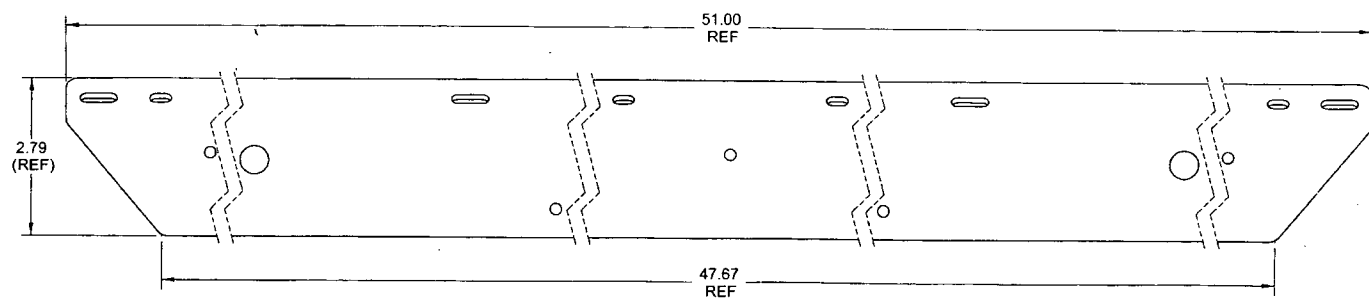
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93134



**D3499-2F MOUNTING PLATE FLAT PATTERN**  
SCALE 0.5X



**D3499-2 MOUNTING PLATE**

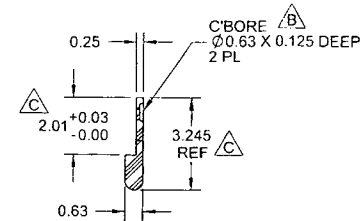
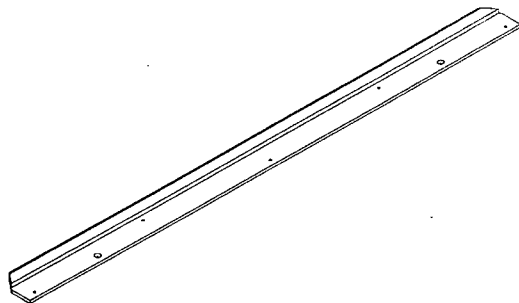
**D3499-2 BENDING  
DETAIL**

RELEASED  
R 2010-02-02

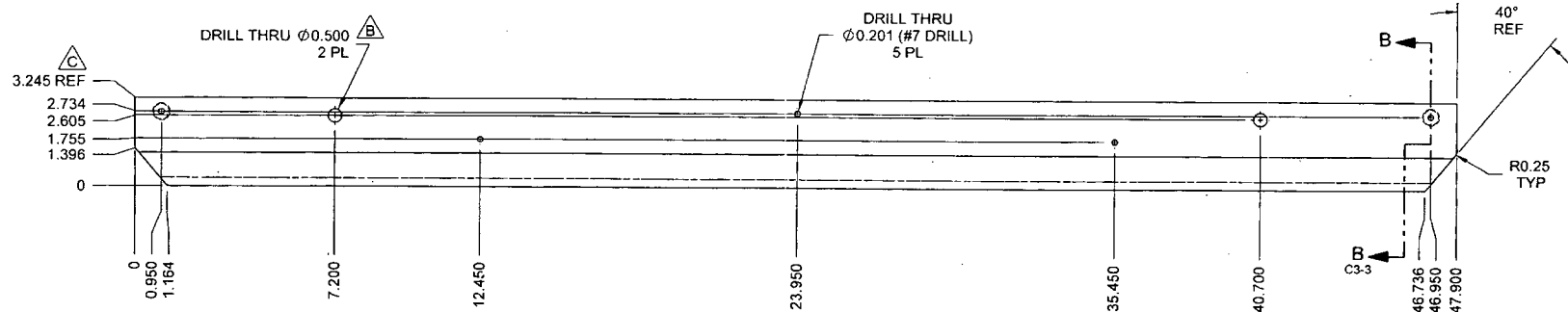
- NOTES:
- 1) MATERIAL: 6061-T6 ALUMINUM SHEET 0.125 THICK  
PER AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209  
REF. DART SPEC. M6061T6S.125
  - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT "WHITE" (4.3.5.2) PER DART QSI 005 4.3
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: 1.81 lbs

DESIGN	RF	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.		D3499	SHEET 2 OF 4
APPROVED		TITLE	SCALE
DE APPR.		CABLE GUARD	NTS
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93134



SECTION B-B B2-3



D3499-3 CABLE GUARD

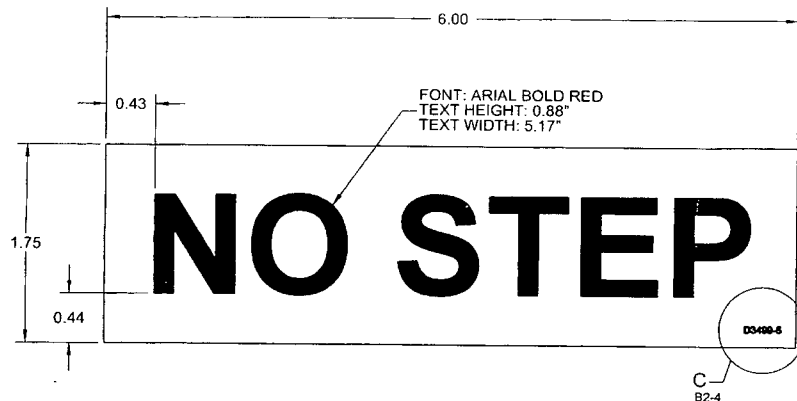
NOTES:

- 1) MATERIAL: UHMW BLACK TIVAR 1000 VIRGIN MATERIAL  
REF. MUHMWB
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 2.52 lbs

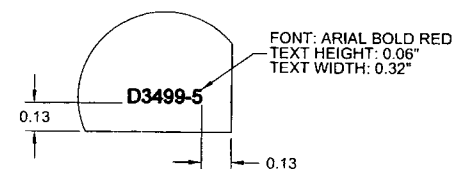
RELEASED  
2010-02-02

DESIGN	J	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWN	RF		
CHECKED	RF	DRAWING NO.	REV. C
MFG. APPR.		D3499	SHEET 3 OF 4
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DE APPR.		CABLE GUARD	NTS
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93134



D3499-5 PLACARD



DETAIL C  
SCALE 2X B5-4

**RELEASED**  
2010-02-03  
mp

NOTES:

- 1) MATERIAL: RED LETTERS ON WHITE ADHESIVE BACK VINYL  
MANUFACTURED FROM 3M 7 MIL MASKING FILM #8522CP OR  
AVERY IPM #2031. SIZE IS 6.00" LONG" x 1.75" WIDE
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A

DESIGN	B	<b>DART AEROSPACE USA, INC.</b>	
DRAWN	RF	PORT HADLOCK, WA	
CHECKED	JP	DRAWING NO.	REV. C
MFG. APPR.	[Signature]	D3499	SHEET 4 OF 4
APPROVED	[Signature]	TITLE	SCALE
DE APPR.	[Signature]	CABLE GUARD	NTS
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